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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/810,603

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Takayuki Kurata

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07/20/2004

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EXAMINER

JAGAN, MIRELLYS

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 07/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/810,603

Applicant(s)

KURATA, TAKAYUKI

Examiner

Mirellys Jagan

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2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10,12,13 and 15-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 17 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☒ Claim(s) 1-7,9,10,12,13,15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/19/01 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Objections*

1. Claims 1-7, 9, 10, 12, 13, 15, and 16 are objected to because of the following informalities:

In claim 1, “to be run on” should be replaced with --to rotate on-- in line 2 in order to provide proper antecedent basis in the claim for the terms “rotated” and “rotation” in lines 9-10. Also, it is not clear in line 4 how the temperature of the tread surface part is increased (the specification discloses that the temperature is increased by the rotation of the tire on the surface). Furthermore, the claim appears to be forecasting the tread wear in two different and unrelated ways: 1) based on the increase in temperature of the surface part or on the temperature of the surface part after increasing the temperature of the surface part (see lines 5-7), and 2) based on a difference in temperature between the temperature of the surface part before the tire rotates and the temperature of the surface part after rotation begins (see lines 8-10). Therefore, it is not clear if one or both of these forecasts are to be used together in the claimed method.

In claim 2, it is not clear if the temperature that is measured in the claim is the same temperature that is measured in lines 3-4 and 9-10 of claim 1, e.g., is claim 2 stating that the measuring step claimed in lines 3-4 of claim 1 is obtained when the temperature of the surface part is higher than the temperature of the groove, or is claim 2 stating that the temperature of the surface part that is obtained after rotation begins (see lines 9-10 of claim 1) is obtained when the temperature of the surface part is higher than the temperature of the groove?

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In claim 3, “is started running” should be replaced with --begins to rotate-- for proper antecedent basis in the claim. Furthermore, it is not clear which of the temperatures that are measured in claim 1 is being referred to by the phrase “measuring the temperature”.

In claims 4 and 5, “running” should be replaced with --rotating-- in lines 2, respectively, for proper antecedent basis in the claim.

In claim 7, it is not clear which of the temperatures that are measured in claim 1 is being corrected, e.g., is it the temperature of the surface part that is obtained before the tire is rotated (see line 9 of claim 1), and/or the temperatures measured after the temperature of the surface part increases (see lines 3-4 and 9-10 of claim 1)?

In claim 9, it is not clear which of the temperatures that are measured in claim 1 is being referred to by “measuring the temperature”, e.g., is it the temperature of the surface part that is obtained before the tire is rotated (see line 9 of claim 1), and/or the temperatures measured after the temperature of the surface part increases (see lines 3-4 and 9-10 of claim 1)?

In claim 12, “be run” should be replaced with --rotate-- in line 3 to provide proper antecedent basis in the claim. There is lack of antecedent basis in the claim for “measurement results” in lines 12 and 14, i.e., “temperature measurement results” should be changed to --temperature measurements--. Furthermore, there is lack of antecedent basis in the claim for “first temperature measurement” and “second temperature measurement” (claim 12 states that there are multiple temperature measurements obtained, so it is not clear which of these multiple measurements is a first and second measurement), and there is lack of antecedent basis in the claim for “temperature measurement locations”, e.g., are these location the thread surface part? Lastly, it is not clear if the “information” from the measuring means (see line 11) is the

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temperature measured or the temperature distribution discerned by the measuring means in lines 9-10.

In claim 13, “be run” should be replaced with --rotate-- in line 3, and “running” should be replaced with --rotating-- in line 4 to provide proper antecedent basis in the claim. Furthermore, it is not clear what the inputter is inputting the length into (see line 13). Lastly, it is not clear if the “information” from the measuring means (see line 12) is the temperature measured or the temperature distribution discerned by the measuring means in lines 10-11.

In claims 15 and 16, “be run” should be replaced with --rotate-- in lines 3 to provide proper antecedent basis in the claims.

Claims 6 and 10 are objected to for being dependent on an objected base claim.  
Appropriate correction is required.

***Allowable Subject Matter***

2. Claims 1-7, 9, 10, 12, 13, 15, and 16 would be allowable if amended to overcome the objections set forth in this Office action.

3. Claim 17 is allowed.

4. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record does not disclose or suggest the following in combination with the remaining limitations of the claims:

A tire tread wear forecasting method comprising the step of forecasting the tire wear based on the temperature differential that is calculated by subtracting the temperature of the tread

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surface part before the tire is rotated on the road surface from the temperature of the tread surface part after the rotation begins (see independent claim 1).

A tire tread wear forecasting apparatus that forecasts the tread wear based on a temperature of a tread surface part of a tire after causing the tire to come into contact with and to run on a road surface in order to increase the temperature of the surface part, wherein the temperature of the tread surface before rotating is different from the temperature of the road surface, the apparatus comprising a compensator that corrects the measured temperature based on the length of the tire contact surface that has been input by the inputter (see independent claim 13).

5. The Examiner's statement of reasons for the indication of allowable subject matter for claims 12, 15, and 16 can be found in the Office action dated 3/4/03.

6. The following is a statement of reasons for allowance:

The prior art of record does not disclose or suggest the following in combination with the remaining limitations of the claims:

A tire tread wear forecasting method comprising the step of forecasting a relative amount of wear and a location of the wear on a tread surface of the tire (see independent claim 17).

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-7, 9, 10, 12, 13, and 15-17 have been considered but are moot in view of the new ground(s) of rejection.

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***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patent and publications disclose means for testing a tire:

U.S. Patent 6,546,791 to Yurjevich

U.S. Patent Application Publication 2003/0214394 to Behrendsen

U.S. Patent Application Publication 2004/0015312 to Asano et al

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mirellys Jagan whose telephone number is 571-272-2247. The examiner can normally be reached on Monday-Friday from 9AM to 4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ



**Diego Gutierrez**  
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